

## **REMARKS**

Applicants' representative acknowledges with thanks the courtesies extended by the Examiner during the telephone interview of August 12, 2003.

### ***I. STATUS OF THE CLAIMS***

Claims 1-23 are pending.

Entry of this response after final is deemed proper under 37 C.F.R. § 1.116 because: (1) the response raises no new issues; (2) the response includes no claim amendments; and (3) the application is in condition for immediate allowance.

### ***II. REJECTION UNDER 35 U.S.C. § 103(a)***

The Examiner has maintained her rejection of claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,087,429 ("*Yamamoto*") in view of U.S. Patent No. 4,504,617 ("*Yui*") and has additionally rejected previously added claims 21-23 over these references. The Examiner acknowledges that *Yamamoto* does not teach a composition containing a crystalline propylene/ethylene block copolymer above 80% by weight. The Examiner utilizes *Yui*, to show that it would have been an obvious modification to increase the amount of crystalline propylene/ethylene block polymer disclosed in *Yamamoto* to the weight percent range recited in Applicants' claims. Applicants' respectfully disagree that the presently claimed invention is unpatentable over the cited combination. This rejection is respectfully traversed and allowance of the claims requested for at least the following reasons.

The invention of the present claims is directed to a thermoplastic resin composition, which is comprised of three components:

#### **Component a:**

about 85 to about 95 weight% of a crystalline propylene ethylene block copolymer or of a combination of a crystalline propylene ethylene block copolymer and a polypropylene homopolymer, wherein

- i. said crystalline propylene ethylene block copolymer or said combination has a melt flow rate, measured at 230° C under 2.16-kg load, ranging from about 20 to about 30 g/10 minutes,
- ii. the wt% of ethylene in said crystalline propylene ethylene block copolymer or said combination ranges from about 2.2 to about 4.2 wt%; and
- iii. said propylene homopolymer has an isotactic pentad fraction, measured by <sup>13</sup>C-NMR, greater than or equal to about 94%

Component b:

about 2 to about 8 weight% of an ethylene butene rubber, wherein said ethylene butene rubber has

- i. a melt flow rate, measured at 230° C under 2.16-kg load, ranging from about 5 to about 10 g/10 minutes, and
- ii. a density ranging from about 0.860 to about 0.865 g/cc; and

Component c:

about 2 to about 8 weight% of talc that has an average diameter ranging from about 1 to about 2 μm.

The propylene resin composition of *Yamamoto* contains as one component, **50 to 80%** by weight of a crystalline propylene-ethylene block copolymer (component A). *Yamamoto* states that one of the objects is to “provide a resin composition which has an excellent balance between low-temperature impact resistance and rigidity” (col. 2, lines, 2-4). *Yamamoto* also states that “if component A is less than 50% by weight, rigidity deteriorates, while if more than 80% by weight, impact resistance deteriorates” (col. 4, lines 51-53). Given this disclosure, a person skilled in the art, after reading *Yamamoto*, would certainly not be motivated to increase the amount of component A beyond 80% by weight. In fact, *Yamamoto* teaches away from the presently claimed invention.

Indeed, a person skilled in the art would be not be motivated to either increase or decrease the initial amount of component A in the *Yamamoto* composition, and certainly not outside of the recited 50-80% weight range. Here, where the proposed modification of the amount of component A would render the composition of *Yamamoto* unsatisfactory for its

intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

In the *Yamamoto* Examples of various resin compositions of his invention, the amount of component A in each composition never exceeds 65% by weight, clearly supporting the teaching of the specification that a weight percentage of over 80% for component A is disfavored. In fact, the resin compositions described in *Yamamoto's* Comparative Examples 1 and 6, in which the weight percentage of component A is 80% or higher, exhibit undesired low impact strength compared to compositions in which the weight percentage of component A is lower than 80%.

*Yui*, used by the Examiner to purportedly show that higher levels of *Yamamoto's* component A would have been an obvious modification, in describing propylene polymer compositions, does nothing to motivate one skilled in the art to increase the amount of component A in *Yamamoto* to levels above 80% by weight. As noted above there is no motivation in *Yamamoto* to increase the amount of component A above the specified 80 % by weight without adversely affecting the desired properties of the resulting thermoplastic resin composition.

*Yui* claims a formulation using up to 90% by weight of another crystalline propylene copolymer, component (A), different from *Yamamoto's* component A, but a closer look at the totality of the disclosure of *Yui* clearly indicates that compositions containing component (A) in a weight percentage of over about 70%, exhibit inferior properties, regardless of which particular species of component (A) is present. For example, in Table 1, the only polymers containing component (A) at a ratio greater than 60% by weight are those where component (A) is present in 100 %. Undesired sinking and warping properties were found to be "great" in these polymers composed purely of component (A). In Table 4, the only entry of a polymer containing component (A) in an amount that is greater than 50% by weight is a polymer containing 100% of component (A). This polymer also exhibited unacceptable sinking and warping properties. Similar results are shown in other tables, for instance, Experiment Number 52 in Table 13, where a polymer composition containing 87% by weight of component (A) exhibited inferior sinking, warping, elasticity and heat deformation temperature compared to a polymer composition where the identical component (A) species was only present in 70% by weight. Clearly, one skilled in the art, after reading *Yui*, would not be persuaded to increase the weight percentage of

component (A) in any polymer composition to levels above 80% given the overwhelming experimental evidence in *Yui* that increasing component (A) to levels above around 70% by weight results in compositions with inferior dimensional, elastic and deformation characteristics.

One skilled in the art would not be motivated to increase the upper range percentage of component (A) of the compositions of *Yamamoto* from the *Yui* reference. Additionally both *Yamamoto* and *Yui* indicate, through their experimental data, that resins with weight percentages of component (A) higher than about 70% impart undesired properties to the resulting composition.

Here, where the proposed modification of *Yamamoto* would render the *Yamamoto* composition unsatisfactory for its intended purpose, there is obviously no suggestion or motivation to make the propose modification. The teaching or suggestion to make a claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicants' disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The presently claimed 85 to 95% by weight range of component a is neither taught nor suggested by the proposed combination of *Yamamoto* and *Yui*. A *prima facie* case of obviousness has not been established by the Examiner. In the telephone interview, the Examiner requested evidence of criticality of the claimed wt. % range for component (A), however such evidence of criticality is not required until a *prima facie* case of obviousness of the claimed range is established; this is not the case here. See MPEP 2144.05. As set forth above, *Yamamoto* teaches away from a higher level of component (A) than the 50 to 80 % by weight range claimed in *Yamamoto*.

Given that *Yamamoto* and *Yui*, either standing alone or in the suggested or any combination do not teach or suggest Applicants' polymer composition containing 85-95% by weight of component a; a crystalline propylene ethylene block copolymer or a combination of a crystalline propylene ethylene block copolymer with a polypropylene homopolymer, Applicants' respectfully request that the rejection of claims 1-23 under 35 U.S.C. § 103(a) be withdrawn.

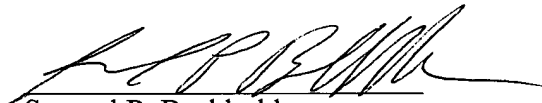
Application No.: 09/836,534  
Response to Office Action dated August 20, 2003  
Reply to Office Action dated May 21, 2003

### ***III. CONCLUSION***

In view of the foregoing, Applicants' respectfully request allowance of claims 1-23. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

**Except** for issue fees payable under 37 C.F.R. §1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§1.16 and 1.17 which may be required, including any required extension of time fees, or to credit any overpayment to Deposit Account No. 50-0925. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. §1.136(a)(3).

Respectfully submitted,



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